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Indian Standard
**SPECIFICATION FOR
COTTON CLOTH FOR *PAGRIS* AND *PAGS***

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BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

Indian Standard

SPECIFICATION FOR COTTON CLOTH FOR PAGRIS AND PAGS

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Indian Standard

SPECIFICATION FOR COTTON CLOTH FOR *PAGRIS* AND *PAGS*

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 26 November 1973, after the draft finalized by the Cotton and Cotton Products Sectional Committee had been approved by the Textile Division Council.

0.2 This standard is based on IND/TC/0016 'Cloth, cotton for pagris and pags', issued by the Ministry of Defence, Government of India.

0.3 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS:2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard prescribes requirements of cotton cloth, bleached or dyed, used for *PAGRIS* and *PAGS*.

2. MANUFACTURE

2.1 The cloth shall be evenly and firmly woven employing plain weave and shall be reasonably free from weaving defects.

2.2 The white cloth shall have a full bleached finish.

NOTE — The whiteness shall not be obtained through the use of optical whiteners.

2.3 The dyed cloth shall be dyed to the required shade using vat dyes. The dyed fabric shall be free from stains, streaks, patches, etc.

3. REQUIREMENTS

3.1 The cloth shall conform to the requirements specified in Tables 1 and 2.

*Rules for rounding off numerical values (*revised*):

**TABLE 1 PHYSICAL REQUIREMENTS OF COTTON CLOTH FOR
PAGRIS AND PAGS**
(Clause 3.1)

COUNT OF YARN (APPROX.)		THREADS PER dm, Min		WEIGHT, Min	BREAKING LOAD ON 5·0 × 20 cm STRIPS, Min	
Warp	Weft	Ends	Picks		Warp	Weft
(1)	(2)	(3)	(4)	(5)	(6)	(7)
20 tex (or 30 ^S)	20 tex (or 30 ^S)	300	214	g/m ² 102	kg 32	kg 17
METHOD OF TEST	—	—	IS : 1963-1969*	IS : 1964- 1970†	IS : 1969-1968‡	

*Methods for determination of threads per decimetre in woven fabrics (*first revision*).

†Methods for determination of weight per square metre and weight per linear metre of fabrics (*first revision*).

‡Method for determination of breaking load and elongation at break of woven textile fabrics (*first revision*).

4. MARKING

4.1 The cloth shall be marked with the following:

- a) Name of the material;
- b) Manufacturer's name, initials or trade-mark; and
- c) Month and year of manufacture.

4.1.1 The cloth may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. The ISI marked products are continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

5. PACKING

5.1 Unless otherwise specified, the cloth shall be packed in conformity with the procedure laid down in IS:1347-1972*.

*Code for inland packaging of cotton cloth and yarn (*first revision*).

TABLE 2 OTHER REQUIREMENTS OF COTTON CLOTH FOR PAGRIS AND PAGS
(Clause 3.1)

SL No.	CHARACTERISTIC	REQUIREMENT	METHOD OF TEST
(1)	(2)	(3)	(4)
i)	Scouring loss, percent by mass, <i>Max</i>	2	Appendix A of IS : 863-1969*
ii)	pH value	Between 6 and 8.5	IS : 1390-1961†
iii)	Ash content, percent by mass, of bleached cloth, <i>Max</i>	0.5	7 of IS : 199-1957‡ (see Note 1)
iv)	Water solubles, percent by mass of bleached cloth, <i>Max</i>	1	IS : 3456-1966§
v)	Colour fastness to:		
	a) Light	5 or better (see Note 2)	IS : 2454-1967
	b) Washing	4 or better	IS : 765-1966¶ (see Note 3)
	c) Bleaching	4 or better	IS : 762-1956**
vi)	Length:		
	a) For PAGRIS	5.5 m or multiples thereof	
	b) For PAGS	4.5 m or multiples thereof	
vii)	Width	Approximate 81 cm	IS : 1954-1969††

NOTE 1 — Ash content shall be determined after the removal of water soluble matter.

NOTE 2 — For olive-green shade used for Defence purposes, the requirement for colour fastness to light shall be 6 or better.

NOTE 3 — In the case of cloth dyed to olive-green shade for Defence purposes the colour fastness to washing shall be tested according to IS : 3417-1966 'Method for determination of colour fastness of textile materials to washing: test 5', repeating 4 times to simulate service requirements.

*Specification for handloom cotton bandage cloth (*first revision*).

†Methods for determination of pH value of aqueous extracts of textile materials.

‡Method for estimation of moisture, total size or finish, ash and fatty matter in grey and finished cotton textile materials (*revised*).

§Method for determination of water soluble matter of textile materials.

||Method for determination of colour fastness of textile materials to artificial light (xenon lamp).

¶Colour fastness of textile materials to washing: test 4 (*revised*).

**Method for determination of colour fastness of textile materials to hypochlorite bleaching.

††Methods for determination of length and width of fabrics (*first revision*).

6. SAMPLING

6.1 For ascertaining the conformity in respect of ends, picks, weight per square metre and breaking load, the procedure given in IS:3919-1966* shall be followed.

6.2 For ascertaining the conformity in respect of pH value, water solubles, ash content, scouring loss and colour fastness, the procedure given in IS:5463-1969† shall be followed.

*Methods for sampling of cotton fabrics for determination of physical characteristics.

†Methods for sampling of cotton fabrics for chemical tests.

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AMENDMENT NO. 1

FEBRUARY 1978

TO

**IS : 7119-1973 SPECIFICATION FOR
COTTON CLOTH FOR PAGRIS AND PAGS**

This amendment is being issued to incorporate the requirements of superfine variety.

Alterations

(*Page 3, clause 2.3, line 1*) — Substitute 'appropriate dyes' for 'vat dyes'.

(*Page 4, Table 1*) — Substitute the following for the existing matter:

**TABLE 1 CONSTRUCTIONAL PARTICULARS OF COTTON CLOTH FOR
PAGRIS AND PAGS**

(*Clause 3.1*)

VARIETY No.	APPROXIMATE COUNT OF YARN		ENDS/cm	PICKS/cm	MASS	BREAKING LOAD ON 5'0 × 20 cm STRIPS, Min	
	COTTON COUNT (TEX)	Warp				Warp	West
(1)	(2)	(3)	(4)	(5)	(6) g/m ²	(7) N	(8) N
1	30 [*] (20 tex)	30 [*] (20 tex)	30	22	105	310	160
2	80 [*] (7.4 tex)	80 [*] (7.4 tex)	30	25	40	190	110
TOLERANCE, PERCENT	—	—	±5	±5	+5 -2.5	—	—
METHOD OF TEST	—	—	IS : 1963-1969*	IS : 1964- 1970†	IS : 1969- 1968‡		

NOTE — 1 Newton (N) is approximately equal to 0.102 kgf.

*Methods for determination of threads per decimetre in woven fabrics (*first revision*).

†Methods for determination of weight per square metre and weight per linear metre of fabrics (*first revision*).

‡Method for determination of breaking load and elongation at break of woven textile fabrics (*first revision*).

[*Page 5, Table 2, Sl No. (vii)*] — Substitute the following for the existing matter:

(1)	(2)	(3)	(4)
vii)	Width:		IS : 1954-1969††
	Variety 1	81 cm	
	Variety 2	115 cm	

(TDC 2)

AMENDMENT NO. 2 FEBRUARY 1980

TO

IS:7119-1973 SPECIFICATION FOR COTTON CLOTH
FOR PAGRIS AND PAGS

Alteration

(Page 3, clause 2.2, Note) - Substitute the following
for the existing Note:

'NOTE - The desired whiteness of the cloth would be
achieved only by imparting full bleached finish free
from any bluing/whitening agents, if desired by the
buyer.'

(TDC 2)

AMENDMENT NO. 3 APRIL 1990
TO

**IS 7119 : 1973 SPECIFICATION FOR COTTON CLOTH
FOR PAGRIS AND PAGS**

[*Page 5, Table 2, Sl No. (v) (c)*] — Insert the following at the end:

'd) Rubbing

IS 766 : 1988^{††}

Dry 4 or better

Wet 4 or better

††Colour fastness of textile materials to rubbing.'

(TDC 2)